



City Research Online

City, University of London Institutional Repository

Citation: Inskip, C., Butterworth, R. and MacFarlane, A. (2008). A study of the information needs of the users of a folk music library and the implications for the design of a digital library system. *Information Processing and Management*, 44(2), pp. 647-662. doi: 10.1016/j.ipm.2007.05.004

This is the unspecified version of the paper.

This version of the publication may differ from the final published version.

Permanent repository link: <http://openaccess.city.ac.uk/1713/>

Link to published version: <http://dx.doi.org/10.1016/j.ipm.2007.05.004>

Copyright and reuse: City Research Online aims to make research outputs of City, University of London available to a wider audience. Copyright and Moral Rights remain with the author(s) and/or copyright holders. URLs from City Research Online may be freely distributed and linked to.

City Research Online:

<http://openaccess.city.ac.uk/>

publications@city.ac.uk

A study of the information needs of the users of a folk music library and the implications for the design of a digital library system

Charles Inskip ^{1*}, Richard Butterworth ², Andrew MacFarlane ³

^{1,3}Centre for Interactive Systems Research, Department Of Information Science,
City University London, Northampton Square, LONDON, EC1V 0HB

²Interaction Design Centre, School of Computer Science,
Middlesex University, LONDON, NW4 4BT

*Corresponding author. Tel +44 207 272 3835

E-mail addresses: c.inskip@city.ac.uk (C. Inskip), r.j.butterworth@mdx.ac.uk (R. Butterworth), andym@soi.city.ac.uk (A. Macfarlane)

1 Tel +44 207 272 3835

2 Tel +

3 Tel +44 207 040 8386

Vitae:

Charles Inskip is a part time PhD student in Information Science at City University. This paper is based on his MSc Library and Information Studies (2005/6) dissertation where user needs of the Vaughan Williams Memorial Library were investigated. His PhD investigates music industry professionals and their needs in music information retrieval.

Richard Butterworth

Andrew MacFarlane holds a PhD in Information Science from City University London. He is a Senior Lecturer in Information Science and co-director of the Centre for Interactive Systems research, also at City University. His research interests range from local search in IR to user issues such as disabilities in search.

Abstract

A qualitative study of user information needs is reported, based on a purposive sample of users and potential users of the Vaughan Williams Memorial Library, a small specialist folk music library in North London. The study set out to establish what the user's (both existing and potential) information needs are, so that the library's online service may take them into account with its design. The information needs framework proposed by Nicholas (2000) is used as an analytical tool to achieve this end. The demographics of the users were examined in order to establish four user groups: Performer, Academic, Professional and Enthusiast. Important information needs were found to be based on social interaction, and key resources of the library were its staff, the concentration of the collection and the library's social nature. A collection of broad design requirements are proposed based on the analysis and this study also provided some insights into the issue of musical relevance, which are discussed.

Keywords: User information needs; qualitative interviews; folk music; digital library design; musical relevance.

1. Introduction

The Vaughan Williams Memorial Library (VWML) is a small special library hosted by the English Folk Dance and Song Society (EFDSS) in their headquarters in North London. The library was established at the beginning of the twentieth century and has developed an important archive based on unique collections of notebooks and manuscripts donated by members of the society including Vaughan Williams and Cecil Sharp. The library also has a large number of rare recordings, images and memorabilia as well as a large collection of books related to the subject of folk music, dance and folklore. They have recently launched the first phase of their ongoing digitisation programme by putting some of their catalogue online, accompanied by images and information on key collectors.

This study uses Nicholas's (2000) framework to investigate the information needs of the current and potential users, discusses whether these needs are being met by the library and its digital library surrogate, and suggests broad design requirements for future improvements to its digital library (DL) system. As well as suggesting design requirements for a DL system this study also provided some insights into the issue of musical relevance, which are discussed.

The Digital Library and Information Seeking and Retrieval literatures typically deal with academic or professional libraries serving users with comparatively high information seeking skills, and small specialist libraries serving predominantly amateur enthusiasts receive scant attention. (cf. Butterworth and Davis Perkins, 2005; Butterworth 2006). As well as investigating the value of Nicholas's framework as a design tool for digital library systems, we also investigate whether the framework is adequate to capture important issues specific to small, specialist libraries and their users.

2. Background

2.1 Information Needs and Human Information Behaviour

Wilson (1981) discusses the enormous problems of defining 'information need' and how 'information' (or 'facts, advice or opinion') can satisfy physiological, cognitive or affective need. He also suggests that other variables, such as context, will affect information seeking behaviour, such as the social life of the users, their work role, or their environment (whether it be socio-cultural or physical). These were considered in detail by Nicholas (2000), who recommended examining the following factors when

investigating user needs: subject, function, nature, intellectual level, viewpoint, quantity, quality/authority, date/currency, speed of delivery, place, processing. He also raised a variety of demographic factors which were also felt to affect information need: job, country/culture, personality, information awareness, gender, age, time availability, access, resources/costs, information overload. Nicholas' needs-centred approach reflects the shift to Dervin's user-view paradigm (1986) in Information Retrieval (IR) research, and models of information need such as Belkin et al's 'Anomalous State of Knowledge' (ASK) (1982), which focuses predominantly on the user's problem statement and does not take account of the context from which the user derives their need. More recent user-centred research focuses on human information behaviour (HIB) and cognitive approaches (Chowdhury, 2004). The influential models in HIB either focus on the problem itself (Wilson's problem solving model (1994)) or affective needs and the process of resolving the need (Dervin's Sense-Making 'situation-gap-use' model (Dervin and Nilan, (1986), Kuhlthau's development of ISP (Kuhlthau, 1991), Ellis's 'information seeking process' (ISP) (Ellis, 1989)). Nicholas' framework, used as the basis for this research, proposes investigating context and content to comprehensively assess information need and it was felt that this 'umbrella' approach would result in rich and detailed information which could be used to significantly inform the design of the online service of the library in question.

2.2 MIR, evaluation and relevance

Like work in Information Retrieval generally, the work of the Music Information Retrieval community to date has focussed mainly on systems. In an attempt to change the paradigm in MIR research from systems-centred to user-centred, Cunningham (2002) recommends investigating user needs and behaviour stating that recreational users seek music in a similar way to fiction readers, using different techniques to academic users who are more like non-fiction readers. Reinforcing this shift, some key work has also been done on user needs using grounded theory analysis of music queries (Bainbridge et al, 2003) and ethnographic examinations of personal music collections (Cunningham et al 2004). The MIR community is currently focussed on creating a TREC-like evaluation scenario to give credibility and focus to user studies in this area (Lee and Downie 2004, Downie 2003a, Downie 2003b, Cunningham 2002). It is not easy to measure the effectiveness of Music Information Retrieval (MIR) systems because of the affective nature of the documents which are being sought. It is important that there is an agreement of the 'aboutness' of music if retrieval systems are

to work successfully and help users solve their problems. Kuhltau (1991) noted that relevance judgements change as users move through the process of resolving a problem, and depend on ‘moods’ as defined by Kelly (1963 in Kuhltau 1991) and prior and developed knowledge. Some aspects of the challenging concept of musical relevance were examined in this study.

2.3 Observation and interview studies

User studies have changed over time from being quantitative and particular to specific institutions to being more professional, qualitative in nature and attempting to be more generalisable, building upon previous work and having an action function (Roberts and Wilson, 1988). Observation and intensive interviews have been found to be the most valuable methods in user studies (Bainbridge et al, 2003; Gorman and Clayton, 2005; Nicholas, 2000). This study established the demographics of the users by referring to membership and other records, and then selected a purposive sample of users and potential users that reflected the demographic. In-depth semi-structured interviews were then done to elicit rich and detailed comments on the sample’s information needs.

2.4 What is Folk Music?

It is important to show how folk music differs from other genres such as classical or popular music, as we propose that the information needs of those users with an interest in folk music are different to those with an interest in music generally. In essence folk music differs because it typically is a participation and not a spectator sport. The definition of folk music has been the subject of much discussion since before the establishment of the Folk Song Society at the end of the nineteenth century. Influential song collector Cecil Sharp proposed that:

“Folk music is the product of a race, and reflects feelings and tastes that are communal rather than personal; it is always in solution; its creation is never completed; while at every moment of its history it exists not in one form but in many.” (Sharp, 1907:15)

This definition was not ideal (many songs are more personal than communal) and owing to the commercial nature of music and entertainment there needed to be a reflection of this. During the 1960s Folk Revival in Britain, Lloyd discussed the 1954 definition by the International Folk Music Council (IFMC):

“Folk music is the product of a musical tradition that has been evolved through the process of oral transmission. The factors that shape the tradition are: (i) continuity which links the present to the past; (ii) variation which springs from the creative impulse of the individual or group; and (iii) selection by the community, which determines the form or forms in which the music survives.” (IFMC in Lloyd, 1967:15)

This definition allowed the inclusion of popular songs that had been absorbed into communal tradition (as long as they have been changed over time) as well as music that springs from the community. The key is the fact the music is changing over time. This is what makes folk music (the voice of the people) different from classical music (the voice of the composer) or popular music (the voice of the performer) (Cook, 1998). However this definition is idealistic and is restricted by the limitations of preservation of information from an oral tradition.

During the interviews for this study various other definitions were proposed: “folk is whatever people say it is” and “it’s easier to define by what it’s not”. Folk is understood by this study to include music which was originally created for informal entertainment for the self and community rather than for profit, and is continually evolving or developing. Because of this difference from classical and popular musics it was felt appropriate to study this area as different issues may arise in information needs for folk music.

2.5 The Vaughan Williams Memorial Library

By making its catalogue and additional supplementary information available online the VWML is making a commitment on taking the path towards becoming a digital library – or, by virtue of its collection, a hybrid library (containing elements of both a traditional physical library and a paper-free virtual information space). It also has very important social functions and is based in an important building with which it has strong connections. VWML and, importantly, its potential funders, see digitisation as essential if they are to develop their services and their audience reach. Funding is often the deciding factor in how library policy is enacted, particularly in smaller specialist libraries where resources are limited (Butterworth and Davis Perkins, 2005).

A digitisation project was started at VWML in 1998 with funding specifically to digitise certain audio material, to aid preservation and improve accessibility. The bulk of the recordings are now digitised and catalogued. However the recordings are not available online and users wishing to hear the digitised material need to visit the library to both explore the catalogue and listen to the music. The digitisation currently benefits the library more by preserving the collection than helping to increase the audience.

Only a limited amount of the material held by the library is available on-line. With the view the library is responding to needs of both users and funders, a rolling digitisation programme is in progress with a long-term objective to firstly make the catalogue available for searching. One step on this path was made when the library website was launched in May 2006 as 'VWML Online' (VWML Online 2006). This service reflects the way the folk music canon was established by the collectors. Since the library is made up of individual collections of songs, the website is designed around this idea, but also hosts an umbrella 'universal' continually updated database called the 'Roud Folk Song Index' after its creator Steve Roud (VWML Online 2006). Additional website services are a gallery of photos taken mainly by the collectors and their assistants of the original performers, biographies of the collectors, and numerous bibliographies.

3. Methodology

The library and its hosting organisation holds several sources of information about actual and potential users. Library and organisational membership records were studied as well as previous library use surveys and the library visitors' from this initial study four broad user groups were determined:

- **Performer** (*musician / singer / dancer / actor / student / composer*)
- **Academic** (*teacher / lecturer / student / school*)
- **Professional** (*journalist / media researcher / record company / historian / concert promoter*)
- **Enthusiast** (*recreational user, shopper, music consumer*)

These were as mutually exclusive as possible although crossover was inevitable owing to the fragmented freelance nature of lifestyles where performers and journalists may be teachers, and students are consumers.

Ten users and potential users of VWML were interviewed. These users were selected in an attempt to represent all user groups and some potential users. As it is impossible to say how many potential users of the library there are it was decided that users in the sample should outweigh potential users by 2:1, as their experience of the physical library would be valuable in designing the online system, so seven users were interviewed, and three potential users. In order to reflect the user groups established above, the librarian was requested to recommend two performers, two academics, and two professionals, and was also interviewed himself. The potential users were already known to the researcher as having an interest in folk but not having used the library.

The interviews attempted to cover three key areas in the sessions: how the respondents define and solve their problem; what words the respondents use to describe the music information they are looking for and how they evaluate the relevance of the information they get. The answers were then transcribed directly into a table based on Nicholas (2000) framework for evaluating information need, coding the answers according to how they related to: subject, function, nature, intellectual level, viewpoint, quantity, quality/authority, date/currency, speed of delivery, place, processing. The coding was reviewed and distilled further, allowing themes to emerge. A variety of demographic factors were also considered: job, country/culture, personality, information awareness, gender, age, time availability, access, resources/costs, information overload.

There were therefore two avenues of investigation: the library's records (including previous surveys), and the interviews specifically undertaken for this study. This was designed to ensure a 'triangulation' or 'multi-method' approach ensuring validity and reliability of results.

4. Results

4.1 Demographics

User	User / potential user	Job	Personality	Research experience
1	User	Performer	Team	Good
2	User	Performer	Lone	Poor
3	User	Academic	Team	Good
4	User	Professional	Lone	Poor
5	User	Professional	Lone	Good
6	User	Professional	Team	Good
7	User	Academic	Team	Good
8	Potential user	Professional	Lone	Medium
9	Potential user	Professional	Lone	Good
10	Potential user	Professional	Team	Poor

Figure 1. Summary of the characteristics of the users

During the interviews some demographic characteristics were drawn out of the participants as these were likely to have some relationship with information needs. A summary of those characteristics is shown in figure 1. Amongst the user group, there were two Performers, two Academics and three Professionals. The potential users all described themselves as Professionals. Additionally, all users also described themselves as having originally been Enthusiasts before moving into closer involvement with the discipline, and four users crossed user group boundaries. This reflected the findings of research into the interests and activities of each respondent, which showed that most of them were involved in more than one area of activity. Across all of the demographic variables, the biggest variations were in job/role, personality, and level of experience in research.

4.1.1 Job

The job, whether it is Performer, Academic or Professional, partly determines whether or not the library is used. Nearly all of the respondents spoke about how they had first got involved in the music as an Enthusiast and had voraciously followed a path from their entry point (usually a commercial recording), seeking further back along a path created by references made in interviews and sleeve notes. The Enthusiast then used local libraries and record shops until they had satisfied that ASK. Many of them went

on to visit VWML. Subsequently they became further involved, as Performers, Academics or Professionals. Potential users are more Enthusiasts than anything else. This could explain why they have not used the library, as the needs of the Enthusiast are better served by more general resources. There appears to be a hierarchy of sources, illustrated by the interviews in this study, determined by specificity.

4.1.2 Personality

The Personality of the users was considered, with a view to establishing whether they were Team oriented or not. It was noticeable that amongst the users there was no common personality trait. The social nature of the discipline and the library itself was regularly noted as a positive factor by both the Team Players and the Lone Respondents whether they were seeking social interaction or networking opportunities. Although personality traits were variable, they were not felt to affect information needs in this study. Indeed this line of investigation highlighted the need for interaction by all users with others during their research process.

4.1.3 Research experience

There was a wide level of Research Experience amongst the sample. This revealed a significant point. Those with research experience could interact with the collection more successfully than those without, one of whom was so fearful of some of the infrastructure, such as the microfiche, they did not use it. The inexperienced researchers, who find it difficult to express their needs, lean heavily on browsing and the knowledge and expertise of the librarians while the experienced researcher can work around the library collection with little input necessary on this level apart from social and conceptual.

Key areas for consideration in design of the online service, therefore, should be:

- variable search techniques, with online support;
- entry points reflecting the way Enthusiasts are 'pulled in' by commercial recordings;
- contact with librarians;
- a forum for networking.

4.2 Nicholas' Framework

The main interest in our work comes from assembling the results of the interviews onto Nicholas' (2000) framework and then using these results to propose design requirements for a DL system.

4.2.1 Subject

Users of information systems have learned to describe their needs in terms of the 'aboutness', or subject, of the documents they require to satisfy their information need. Nicholas states that whether this is by keywords or by lengthy and detailed descriptions (specificity or depth), the number of subjects, and the level of difficulty in specifying the subject are all relevant.

There was found to be a comprehensive clear emphasis on the keywords: songs, tunes, texts, manuscripts, ballads, collectors, instrumentals, composers. Less important subjects included social context of the material, personalities, German material, travellers' songs and folk literature. One respondent stood out by solely naming interpreters of songs. Requests ranged from broad to specific. While the more experienced users were happy to do their own searching based on their personal knowledge of the collection, a relationship with the librarians was important at all levels of knowledge and experience. Potential users sought additional information more specific to their work role, such as contact details of new groups, or specific sound recordings.

These subjects could all be reflected in a digital library by:

- full catalogue of the library holdings with descriptive metadata like record sleeve notes;
- catalogue entries reflecting record-shop browsing techniques;
- a directory of links to other websites reflecting the rich informal network already established.

4.2.2 Function

Function is described by Nicholas as the use to which the information is put and can be fact-finding, current awareness, research, briefing, or stimulus.

The overall function was found to be to aid the users in informed communication with others by teaching, performing, research for publication or proselytising.

Informed communication and stimulus would be aided by providing a digital forum which would allow users to post different versions of tunes or song texts up, with their

own questions and comments – and build a folksonomy, reflecting the library’s commitment to a living tradition.

Additional functions include:

- Fact-finding, stimulus and research could be served by direct contact with the librarian, and a detailed catalogue, along with a visit to the physical library or downloads of digitised material.
- Briefing could be covered by summaries on the catalogue and links to more in-depth services.
- Current awareness would require some form of news page, noticeboard or RSS feed to members.

4.2.3 Nature/Description

Nicholas categorises information as being conceptual or theoretical, historical, descriptive, statistical or methodological. Most users required historical information, for example collectors manuscripts or notes. Performers required more methodological information, such as:

‘I suppose I’m listening to a lot of things I’m listening to styles, and rhythms, variations, changes in words all sorts of things and the same with sort of print, just looking at different variations’.

These needs would be served by:

- an embedded linking system within the cataloguing
- digitised copies of the original documents and sound recordings.

4.2.4 Intellectual Level

The level of intelligence of the individual, and the level of intelligibility of the information will also be significant factors in satisfying information need (Nicholas, 2000).

Here it was found that there was a difference between the users, who stated a need for specialist information, whereas the potential users seemed to require more general information on folk:

‘I generally I might look at a website have a skim through links I might I’d watch a TV programme if it was about folk and I’d probably read a newspaper

article if it was about Martin Carthy or somebody like that in there but I don't find myself researching it.'

If the library is to bring in new users it must provide general introductory information.

4.2.5 Viewpoint

Nicholas lists school of thought, political orientation, positive or negative approaches, and discipline orientation as the main examples of different categories of viewpoint. He states that the approach or angle taken by the information provider or creator of the document will be a factor in whether or not the information meets the expectations of the user.

There was no consistency on the viewpoint of the information the respondents sought, whether it be that of Cecil Sharp, or a socialist one, or a traditional one. However the potential users all focused more on the performers, because they are closed to the Enthusiast entry point. It is the importance of 'real people' that came out of the interviews, and this should be reflected in the viewpoint, which is expressed by the name of the service. Perhaps The Vaughan Williams Memorial Library does not say as much to a young user base as 'The National Folk Library (or Centre)' or 'The Library of English Popular (or Folk or Vernacular) Culture'.

4.2.6 Quantity

Nicholas describes how the quantity of information required to solve a problem varies between groups, individuals and by type of need. While some needs can be satisfied by one document, other users may wish to have access to everything available and choose for themselves.

On the whole the users were keen to get hold of as much information as possible to satisfy their needs. It was noticeable that users wish to take the information home once they have got it, for reasons of timing and distance, or because of the need to spend quiet reflective time with songs for example. If the digital library wishes to reflect this need then it has to be able to offer an opportunity for its users to have access to material at home, whether this is by downloading, or arranging a postal service for members.

4.2.7 Quality/Authority

While Nicholas recommends a good understanding of the information producer is required in order to evaluate the quality of the information that is being provided it is not clear whether the respondents have this understanding. Users want an 'official' version or the unique artefact and rely on those they perceive as experts. Potential users are less consistent: one mistrusts those with an interest ('the folk mafia'), preferring to rely on mainstream media, another focuses on the participants own points of view, while a third's research will take him to many sources, often referring to the establishment.

The VWML has an excellent reputation for quality and authority and this must be maintained in any digital library. This means that the digital service has to be reliable, clear and accurate. The interconnected user base will soon inform itself about an inaccurate and slow website which would do disservice to the library's reputation.

4.2.8 Date/Currency

The date the information originates, and how up-to-date it is, will vary with need. As this is partly a historical discipline some of the information held by the VWML dates back to the 17th century and it also has current materials such as recordings and magazines.

It was found that the earliest date of user groups sources varied. The Academics refer to Shakespeare or Broadside (early songs) and need information from the 17th Century onwards; Performers and Professionals access material from 1850 onwards; most Professionals refer to the 1960s folk revival while another focuses mainly on the here and now. Some need recorded sound to proselytise or stimulate so begin their research at around 1900 when sound recordings were first possible. The catalogue and the song indexes could reflect this simply by establishing briefing sections or access points at the key dates.

4.2.9 Speed of Delivery

The length of time the user expects to wait between requesting some information and being provided with it grows shorter with every new technological development and more specialist traditional services are slower than online services (Nicholas 2000).

While for some it does not appear to be an issue, speed of delivery for others is important. Professionals and Academics stated they sometimes needed information

quickly to meet deadlines. The library seems to be flexible and able to respond to these requests:

‘if push comes to shove because I’m serious they will pull out some stops’.

It is likely that users would have different expectations with an online service and would expect an instant response to their requests for information. The current physical service would be reflected digitally by a two-tier service where long term members are prioritised. Downloadable music (sound files) and digitised song texts and music would reflect the potential users need for speed.

4.2.10 Place/Sources

Although Nicholas focuses on how user needs differ according to global sources of information, it was held by this research that various types of establishments within the UK would also be relevant to this criterion.

Opinions were wide ranging, particularly on the internet, which was either the first or last resort depending on the interviewees point-of-view. It was particularly noticeable with the British Library and National Sound Archive (NSA) that although many say they are planning to use them they have not done so. Other sources include social networks, and record sleeves and record shopping. Local libraries are mentioned as a first port-of-call as interest in the subject develops. Respondents start to build their own libraries when they know they are involved for the long term. Local records offices were mentioned as being invaluable sources, and the mainstream media ease of access was praised. For the users, the wide ranging sources all led back to the VWML. The online service should:

- confront the general distrust the users have of internet services in terms of quality;
- reflect the need for seamless multimedia comparisons needed to examine the variations between songs;
- personalise the interface and provide links to online book and CD sellers enabling the users to generate their own physical library;
- provide downloadable extracts of sound recordings;
- provide links to local library catalogues and items of interest in mainstream media.

4.2.11 Processing and Packaging

Processing and Packaging of information, or how the information is presented to the user, indicates a preference amongst the current users of raw data over summarised and interpreted data, and physical documents over digital.

Potential users seem more open to digital information, but need some interpretation of the material to improve their understanding.

The online service currently offers raw data (song indexes) leading to a combination of physical (song texts in books and manuscripts) and digital information (photographs of singers, summary of biography of collectors). However the needs of potential users indicates that they would require more interpretation of this information, perhaps by information about the songs online or samples of some of the many song variations.

4.3 Other comments of interest

The two main factors for involvement were a combination of a strong emotional response to the words and the music, and a need to explore this in order to find out more about it, particularly what its roots are. The path the new 'convert' may take is detailed by a number of respondents and is reflected by Ellis' (1989) model whose six characteristics of information seeking (Starting, Chaining, Browsing, Differentiating, Monitoring and Extracting) are clearly discussed by one interviewee:

'(Starting:) I would find an artist initially like Gillian Welsh (Chaining:) and then I would read things interviews with her and references that she'd made and then I'd go and find all those the records or she'd go on about the Carter Family being an influence and (Browsing:) I'd look up the Carter Family and then the Carter Family would go on about somebody or she'd write a song for – very very odd and misdirected – but she'd write a song for Emily Lou Harris or and then I'd read something on Emily Lou Harris and she'd be going on oh yeah she'd be talking about the English stuff and Bob Dylan was really important but people forget people like Dick Gaughan and Christie Moore and contemporary guys still doing it now and then I'd go (Extracting:) and buy something by them (Differentiating:) and be moved by something (Monitoring:) and then get up on the internet or buy a magazine and it just became like a web.'

If this process is reflected by the design of the online service then the developing information needs of the potential user and new convert are more likely to be met. This means:

- providing background information (interviews etc);
- enabling browsing;
- providing links between sources;
- allowing access to sound files;
- providing links to other information sources.

It has to be clear what kind of ‘folk’ the site deals with, and again a forum would give users a good opportunity to discuss their particular version of the definition of folk, which appears to be a strong need amongst the interviewees.

5. Discussion

There are three key issues raised by unsolicited user statements about their experiences of the VWML: librarians, concentration of collection, social issues.

5.1 Librarians

The Librarians are a key resource. It is vital that the web service reflects this key resource in some way, perhaps by some kind of ‘digital librarian’ in the form of a sophisticated search engine. Prior to comprehensive digitisation, an interim solution would be to provide email access to the librarians, or other collaborative methods such as discussion boards or blogs, supplemented by a Frequently Asked Questions (FAQ) section to reduce the number of replicated queries. Their role as interpreters would be to write the text for the site. A Knowledge Management exercise would bring the strengths of the physical library to bear on the proposed digital library service:

“I think that the librarians are in a sense the greatest resource that the library holds because they have very comprehensive knowledge of the tradition”

“the interaction with the librarians at the library is incredibly useful”

“It would never be the same experience without [the librarians] because they just add the personal touch to it – they know what’s going through the library – they know what’s gone through the library.”

“there’s always sort of things that [the librarian] will say or people will say that sort of point me in directions that you’d never pick up entirely on your own sat at your computer in slightly sad isolation”

5.2 Concentration of the collection

The Concentration of the collection allows seamless searching with little effort on the part of the user. This is a highlight of the experience for many and must be reflected in

the online service. There should therefore be a universal catalogue which incorporates all the material, whatever its medium:

“I suppose in terms of concentration of material in that one subject area the VWL is absolutely unique”

“its important to have all that material in with the other material that surrounds it”

“it’s essential to be able to compare all those sort of different things and to have to have access to all the sort of multimedia angle you know in a way that really only a sort of specialist library like this can do”

5.3 Social issues

There are various Social issues around the physical library. The professional networking possibilities and sociability of the environment must be taken into account by the forum and regular librarian updates. Another idea is that of ‘sidetracking’ which is a product of the browsable nature of the collection, the mixture of users present in the physical library at any one time, and the informal nature of the relationship between the librarians and their users:

“you always sort of end of talking to people which is great but it also makes it quite hard to actually get your head down and get some work done in the library so it’s probably better to do that at home and then come down here to sort of bit of I was going to say socialise but I I mean sort of talk over ideas and so forth”

“quite often there will be a little discussion going between people who are there and [the librarian] will introduce I mean he’s introduced me to all sorts of people I’ve never met whether they be academics and performers and so on so just that interaction makes the whole sometimes rather dry process of academic study a little bit more enjoyable”

“the worst thing about this library is its ability to sidetrack you can go in looking for a specific thing – as specific as specific can be and come out with a load of photocopying which has kept you away from your target for another you know two hours – it happens very regularly – it’s almost like one should come in with blinkers and plugs in the ears so you don’t get distracted”

5.4 Musical relevance

Musical Relevance - Finally an opportunity was taken to gain some insight into what makes a piece of music relevant to a user. Respondents pointed out that if they were looking for something in particular then they knew if it was the right thing but were less

certain about how they would evaluate the relevance of a tune if they were not looking for a particular version. They did however focus on meaning, affective responses and critical judgement as well as more technical criteria relating, for example, to teaching levels. One respondent felt that browsing was very important when searching for new materials and that digital resources did not adequately reflect this. A teacher stated that after ensuring they met his initial subject query and criteria he would then choose songs according to how 'transmittable' they were to the children he was teaching – ie whether the lyrics were appropriate and the melodies at a level that reflected the pupils musical abilities. If there were a section on the site for looking at song material this could be broken down by the library into 'ease of performance' for example, or whether they are included in the curriculum or the EFDSS educational material. Themes are also cited as a way of choosing material and these could be entered into the search criteria in the song indexes. However the problem comes when the respondents are deciding whether to use a song for more affective purposes such as performance. It is not easy to reflect critical and aesthetic judgement digitally although previous searches by that particular user could be used to generate an idea of the kind of material they chose before.

6. Conclusions

Nicholas' (2000) framework has been used to develop a rich picture of the particular information needs of users and potential users of a digital library system to support the services offered by The Vaughan Williams Memorial Library. The outcome of this exercise have been positive in several ways. Firstly Nicholas' framework has been shown to have value in describing the information needs of users whose motivations are somewhat different to the users typically described in the digital library and information seeking and retrieval literature. Users with an interest in folk music all described themselves as 'enthusiasts' and demonstrated a high level of passion for the subject. This can be contrasted with user studies typically reported in the literature which look at students or information professionals who tend to display a different type of enthusiasm for their subjects, and focus on the process of information seeking.

Secondly, this work supports the anecdotal evidence proposed by Butterworth and Davis Perkins (2005) that small specialist libraries and their users form a distinct class of information systems that require distinct forms of digital library systems to support them. This work has provided a much more detailed and clearer picture of what those forms of digital library provision are. Intermediation provided by the librarians and the

social networks supported by the library are key to its success, and need to be surrogated online. The picture of a potential digital library that emerges from this work is one that is much more fluid and user participatory than the more static online warehouses of information that one normally associates with digital library provision.

Lastly this work has contributed towards the definition of musical relevance in that there are further aspects of relevance, namely affective responses and ‘transmittability’.

Clearly many of the issues raised here could be expanded in further work. For example it would be valuable to concentrate on performers and model their information needs in the process of developing a performance repertoire. At the other end of the spectrum it would be valuable to look at potential users with only a passing interest in folk music and see what specific information they require to ignite the sort of enthusiasm seen in the users in this study.

There also needs to be work looking at the gap between the broad, high level requirements for digital library development suggested by this work and an actual development method to implement them. A longer term goal would be to provide a set of digital library development tools, like Greenstone or DSpace, but which are specifically aimed at developing online provision for small specialist libraries.

7. References

Bainbridge, D., Cunningham S.J. and Downie, J.S. (2003). How people describe their music information needs: A grounded theory analysis of music queries. In Holger H. Hoos and David Bainbridge *Proceedings of the Fourth International Conference on Music Information Retrieval: ISMIR 2003*. (pp. 221-222).

Belkin, N, Oddy, R., and Brooks, H. (1982) ASK for information retrieval: Part One. Background and Theory. *Journal of Documentation* 38(2)

Butterworth, R. (2006). “Designing digital library resources for users in sparse, unbounded social networks” in Gonzalo et al (eds) *Research and Advanced Technology for Digital Libraries. Proceedings of 10th European Conference, ECDL 2006*, LNCS 4172, pp184–195. Springer.

Butterworth, R. and Davis Perkins, V. (2005) “Assessing the roles that a small specialist library plays to guide the development of a hybrid digital library” in Crestani, F. and Ruthven, I. (eds) *Context: Nature Impact and Role: Proceedings of 5th Int. Conf. on Conceptions of Library and Information Science: CoLIS '05*. LNCS 3507, pp200 – 211, Springer.

- Chowdhury, G.G. (2004) Introduction to modern information retrieval. Facet Publishing, London
- Cook, N. (1998) Music: a very short introduction Oxford, Oxford University Press
- Cunningham, S.J. (2002). User studies: A first step in designing an MIR testbed. Papers Presented at the Workshop on the Creation of Standardized Test Collections, Tasks, and Metrics for Music Information Retrieval (MIR) and Music Digital Library (MDL) Evaluation, 18 July, 2002. pp. 19-21
- Cunningham, S.J., Jones, M. & Jones, S. (2004) Organizing digital music for use: an examination of personal music collections in *Proceedings of the Fifth International Conference on Music Information Retrieval: ISMIR 2004*
- Dervin, B and Nilan, M. (1986) Information needs and uses *Annual Review of Information Science and Technology (ARIST)*, Vol 21, pp3-33, ed. Williams, M.E.. Information Today Inc., Medford, NJ
- Downie, J.S. (2003a). Toward the Scientific Evaluation of Music Information Retrieval Systems. In Holger H. Hoos and David Bainbridge *Proceedings of the Fourth International Conference on Music Information Retrieval: ISMIR 2003*. (pp. 25-32).
- Downie, J.S. (2003b). The TREC Like Evaluation of Music Retrieval Systems Appendix C of *The MIR/MDL Evaluation Project White Paper Collection*, Edition #3
- Ellis, D (1989) A behavioural approach to information retrieval system design. *Journal of Documentation* 45(3)
- Gorman, G.E. & Clayton, P. (2005) Qualitative Research for the Information Professional 2nd edn. Facet Publishing, London
- Kuhlthau, C (1991) Inside the search process: information seeking from the users perspective *Journal of the American Society for Information Science* 42(5) pp 361-371.
- Lee, J. and Downie, J.S. (2004) Survey of music information needs, uses and seeking behaviours: preliminary findings in *Proceedings of the Fifth International Conference on Music Information Retrieval: ISMIR 2004*. (pp. 441-446)
- Lloyd, A.L. (1967) Folk Song In England London, Lawrence and Wishart
- Nicholas, D. (2000) Assessing information needs: tools, techniques and concepts for the internet age ASLIB, London
- Roberts, N & Wilson, T (1988) The development of user studies at Sheffield University, 1963-1988 *Journal of Librarianship* 20(4) pp270-290
- Sharp, C. (1907) English Folk Song: some conclusions Taunton, Simpkin & Co., Novello & Co..
- VWML Online (2006) <http://library.efds.org/> [last accessed October 10th 2006]

- Wilson, T. (1981) On user studies and information needs *Journal of Documentation* 37(1)
- Wilson, T. (1994) Information needs and uses: fifty years of progress? In Vickery, B.C.(ed), *Fifty years of information progress: a Journal of Documentation review*, (pp. 15-51) ASLIB, London